

REMARKS

Applicants have studied the Office Action dated July 9, 2004, and have made amendments to the claims. Claims 1-20 are pending. Claims 1, 8 and 17 are independent claims. Claims 1-20 have been amended. No new matter has been entered. It is submitted that the application, as amended, is in condition for allowance. Reconsideration and reexamination are respectfully requested.

Amendments to the Specification

Amendments have been made to the specification at page 1 to claim foreign priority and change the title of the invention and to pages 2, 7 and 9-13 to correct typographical errors. No new matter has been added by these amendments, which are not related to patentability.

Claim for Foreign Priority under 35 U.S.C. § 119

In the Office action, the Examiner acknowledged the Applicant's claim for foreign priority under 35 U.S.C. § 119 and the receipt of the certified copy of the priority document. With this paper the specification has been amended at page 1 to claim priority to Korean Application 2000-73724 filed on December 6, 2000.

Objection to Title

The Examiner objected to the title of the invention as not being descriptive. With this paper, the title of the invention has been amended to be more descriptive. It is respectfully submitted that the grounds for objection have been overcome and it is respectfully requested that the Examiner withdraw the objection.

Objections to Claims

The Examiner objected to claims 6, 7, 15 and 16 due to informalities. The Examiner further objected to claims 3, 9 and 13 under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim.

The Examiner asserted the following informalities:

It is unclear to what the word "portion" refers in claims 6 and 15.

The word "recording" in line 8 of claim 7 should be replaced by the word "storing."

The word "recorded" in lines 11 and 13 of claim 7 should be replaced by the word "stored."

The word “multiplexer” in line 12 of claim 16 should be “multiplexer.”

The word “to” should be inserted after “values” in the last line of claim 19.

With respect to the Examiner’s objection to claims 6 and 15, those claims have been amended to replace the word “portion” with “part” and the word “screen” with “image” in order to more clearly recite the invention as disclosed in the specification at page 10, ll. 10-15. With respect to the Examiner’s objection to claims 7, 12, and 19, those claims have been amended as suggested by the Examiner.

The Examiner asserted that the subject matter of claims 3 and 9 is already covered, respectively, by claims 1 and 8 since the first and second frame generation features inherently include the outputting of the generated frames. Furthermore, the Examiner asserted that the subject matter of claim 13 appears to be covered by the description of the scene transition-detecting unit recited in claim 8.

With respect to the Examiner’s objection to claims 3 and 9, claims 1 and 8 have been amended to clearly recite that the either the first or the second interpolated frame is selected “based upon whether a 3:2 pull-down mode was detected.” It is respectfully submitted that the subject matter of claims 3 and 9 do further limit the respective base claims in that they further define the conditions under which the first or second interpolated frame is selected in claims 1 and 8.

With respect to the Examiner’s objection to claim 13, claim 8 has been amended to delete the limitation related to “outputting a scene detecting signal” with respect to the “scene transition detecting unit” and claim 13 has been amended to recite that a scene transition detecting signal is output “by the scene transition detecting unit.” It is respectfully submitted that the subject matter of claim 13 does limit the respective base claim in that it further defines the function of the scene transition detecting unit recited in claim 8

It is respectfully submitted that the grounds for objection have been overcome. It is respectfully requested that the Examiner withdraw the objections.

§ 112 Rejections

The Examiner rejected claim 20 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner asserted that term “the previously set-up sequence” has ambiguous antecedence given that base claim 17 recites plural “output sequences” and further asserted that it is not clear if the “sequence” is to be interpreted as the

individual digit run of each specific 5-digit string or the sequence of five strings listed in the order recited.

Claim 17 has been amended to recite that the previously set-up “output sequences” comprise “the five-digit combinations” listed in the claim. It is respectfully submitted that the grounds for objection have been overcome and it is respectfully requested that the Examiner withdraw the objection.

§ 102 Rejections

Claims 1-6, 8-15 and 17-19 were rejected under 35 U.S.C. § 102(b) as being anticipated by Swan (U.S. Patent No. 6,055,018). This rejection is respectfully traversed.

A proper rejection for anticipation under § 102 requires complete identity of invention. The claimed invention, including each element thereof as recited in the claims, must be disclosed or embodied, either expressly or inherently, in a single reference. Scripps Clinic & Research Found. v. Genentech Inc., 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991); Standard Havens Prods., Inc. v. Gencor Indus., Inc., 953 F.2d 1360, 1369, 21 U.S.P.Q.2d 1321, 1328 (Fed. Cir. 1991).

With this paper, independent claim 1 has been amended to recite interleaving or de-interlacing a field with at least two adjacent fields depending on whether a “3:2 pull-down mode” is detected and independent claims 8 and 17 have been amended to recite interleaving or de-interlacing field data with data from at least two adjacent fields depending on whether a “3:2 pull-down mode” is detected. Support for the amendments is found in the specification at page 7, ll. 2-9.

It is respectfully noted that Swan discloses “weaving **either** a previous **or** next opposite field with the current field” depending on several criteria. Swan at col. 12, ll. 13-15 (emphasis added). It is further respectfully noted that Swan discloses a film probability analyzer and determinator for the “3:2 or 2:2 pattern” that picks “**an** opposite field ...and weaves **the** opposite ...field with the current field” as well as a “de-interlacing method determinator” that “de-interlaces using **an** opposite field” if no 3:2 or 2:2 conversion is detected. Swan at col. 13, ll. 11-21 (emphasis added). Moreover, it is respectfully noted that Swan discloses a method to determine if a “3:2 or 2:2 conversion” exists and then “pick opposite field...and weave with the current field.” Swan FIG. 8b steps 160, 162, 164.

It is respectfully submitted that Swan discloses interlacing or de-interleaving a current field with a **single** field depending on whether a “3:2 pull-down mode” is detected, but does not disclose interleaving or de-interlacing with at least two adjacent fields, as recited in claim 1 or

with data from at least two adjacent fields, as recited in claims 8 and 17. Therefore, it is respectfully asserted that independent claims 1, 8 and 17 are allowable over the cited reference. It is further respectfully asserted that claims 2-6, which depend from claim 1, claims 9-15, which depend from claim 8, and claims 18 and 19, which depend from claim 17, also are allowable over the cited reference.

§ 103 Rejections

Claim 20 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Swan in view of ordinary skill in the art. This rejection is respectfully traversed.

As previously indicated, independent claim 17 is allowable over Swan, which does not disclose interleaving or de-interlacing with data from at least two adjacent fields. It is respectfully submitted that interleaving or de-interlacing with data from at least two adjacent fields would not be obvious to one of ordinary skill in the art. Therefore, it is respectfully asserted that claim 20, which depends from claim 17, also is allowable over the cited reference.

Allowable Subject Matter

Applicant is grateful for the Examiner's indication that claims 7 and 16 appear allowable over the prior art. However, since the Office action indicated, in the Disposition of Claims, that claims 1-20 are rejected, it is respectfully asserted that claim 7, which depends from claim 1, and claim 16, which depends from claim 8, also are allowable for the reasons given herein with respect to claims 1 and 8.

CONCLUSION

In light of the above remarks, Applicant submits that claims 1-20 of the present application are in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

U.S. Patent Nos. 6,222,589 to Faroudja et al., 5,461,420 to Yonemitsu et al., 6,008,848 to Tiwari et al., 5,596,371 to Pakhchyan et al., and 5,689,301 to Christopher et al. have been cited as having been made of record and not relied upon. Applicant has reviewed the cited references and believes that the claims of the present invention are allowable over the cited references individually or in combination with the other cited references.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California, telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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